

**WEST**

Generate Collection

Print

L5: Entry 18 of 292

File: DWPI

Dec 14, 2000

DERWENT-ACC-NO: 2001-091163  
DERWENT-WEEK: 200229  
COPYRIGHT 2003 DERWENT INFORMATION LTD

TITLE: Catalyst suspension for ring-opening alkylene oxide polymerization to give polyetherols, comprises a plate-like crystalline multi-metal cyanide compound(s), an organic complex builder(s), a polyether(s) and/or a surface active materials(s)

INVENTOR: BAUER, S; BAUM, E ; DEXHEIMER, E M ; ERBES, J ; GROSCH, G H ; HARRE, K ; JUNGE, D ; LORENZ, R ; OSTROWSKI, T

PRICRITY-DATA: 1999US-0324271 (June 2, 1999)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200074843 A1	December 14, 2000	G	029	B01J027/26
EP 1189695 A1	March 27, 2002	G	000	B01J027/26
AU 200053958 A	December 28, 2000		000	B01J027/26
US 20020006864 A1	January 17, 2002		000	B01J027/26

INT-CL (IPC): B01 J 27/26; C08 G 65/12

ABSTRACTED-PUB-NO: US20020006864A  
BASIC-ABSTRACT:

NOVELTY - Catalyst suspension with high activity comprises a plate-like crystalline multi-metal cyanide compound(s), water, an organic complex builder(s), a polyether(s) and/or a surface active materials(s)

DETAILED DESCRIPTION - Catalyst suspension comprises:

- (a) crystalline multi-metal cyanide compound(s) containing at least 30 wt.% plate-like particles;
- (b) an organic complex builder(s);
- (c) water; and/or
- (d) a polyether(s); and/or
- (e) a surface active material(s).

INDEPENDENT CLAIMS are also included for:

- (1) the preparation of the above suspensions by combining a metal salt with a cyanide compound in the presence of a complex builder and/or a surface active material(s);
- (2) the preparation of polyetherols by ring-opening polymerization of alkylene oxides using the above compounds as catalyst and the obtained polyetherols.

USE - For the preparation of polyetherols of mol. wt. 500-50000 Dalton and functionality 1-8.

ADVANTAGE - Catalyst activity in polyether polyol production is greatly increased and thus the amount of catalyst can be reduced (to below 100 ppm).  
ABSTRACTED-PUB-NO:

WO 200074843A EQUIVALENT-ABSTRACTS:

NOVELTY - Catalyst suspension with high activity comprises a plate-like crystalline multi-metal cyanide compound(s), water, an organic complex builder(s), a polyether(s) and/or a surface active materials(s)

DETAILED DESCRIPTION - Catalyst suspension comprises:

- (a) crystalline multi-metal cyanide compound(s) containing at least 30 wt.% plate-like particles;
- (b) an organic complex builder(s);
- (c) water; and/or
- (d) a polyether(s); and/or
- (e) a surface active material(s).

INDEPENDENT CLAIMS are also included for:

- (1) the preparation of the above suspensions by combining a metal salt with a cyanide compound in the presence of a complex builder and/or a surface active material(s);
- (2) the preparation of polyetherols by ring-opening polymerization of alkylene oxides using the above compounds as catalyst and the obtained polyetherols.

USE - For the preparation of polyetherols of mol. wt. 500-50000 Dalton and functionality 1-8.

ADVANTAGE - Catalyst activity in polyether polyol production is greatly increased and thus the amount of catalyst can be reduced (to below 100 ppm).

## WEST Search History

DATE: Wednesday, May 14, 2003

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
<i>DB - DWPI; PLUR - YES; OP - OR</i>			
L6	L3 not l5	292	L6
L5	L3 and (carbondioxide\$ or dioxide\$)	5	L5
L4	L3 and polycarbonate\$	0	L4
L3	L2 and (platelet\$ or crystal\$)	297	L3
L2	l1 and cataly\$	5761	L2
L1	cyanide\$ or cyano\$	54842	L1

END OF SEARCH HISTORY

(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES  
PATENTWESENS (PCT) VERÖFFENTLICHTE INTERNATIONALE ANMELDUNG(19) Weltorganisation für geistiges Eigentum  
Internationales Büro(43) Internationales Veröffentlichungsdatum  
14. Dezember 2000 (14.12.2000)

PCT

(10) Internationale Veröffentlichungsnummer  
WO 00/74843 A1(51) Internationale Patentklassifikation<sup>7</sup>: B01J 27/26, (74) Gemeinsamer Vertreter: BASF AKTIENGESELLSCHAFT; D-67056 Ludwigshafen (DE).  
C08G 65/12

(21) Internationales Aktenzeichen: PCT/EP00/04569

(81) Bestimmungsstaaten (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(22) Internationales Anmeldedatum:  
19. Mai 2000 (19.05.2000)

(25) Einreichungssprache: Deutsch

(26) Veröffentlichungssprache: Deutsch

(30) Angaben zur Priorität:  
09/324,271 2. Juni 1999 (02.06.1999) US

(71) Anmelder (für alle Bestimmungsstaaten mit Ausnahme von US): BASF AKTIENGESELLSCHAFT [DE/DE]; D-67056 Ludwigshafen (DE).

(72) Erfinder; und

(75) Erfinder/Anmelder (nur für US): GROSCH, Georg, Heinrich [DE/DE]; Berliner Strasse 16, D-67098 Bad Dürkheim (DE). HARRE, Kathrin [DE/DE]; Silberstrasse 4, D-01109 Dresden (DE). ERBES, Jörg [DE/DE]; Jollystrasse 33, D-76137 Karlsruhe (DE). LORENZ, Reinhard [DE/DE]; Freisenbrock 61, D-48366 Laer (DE). BAUER, Stephan [DE/DE]; Heinrich-Witte-Strasse 40, D-49179 Ostercappeln (DE). OSTROWSKI, Thomas [DE/DE]; Waldenburger Strasse 162, D-44581 Castrop-Rauxel (DE). BAUM, Eva [DE/DE]; Ruhlander Strasse 123, D-01987 Schwarzheide (DE). JUNGE, Dieter [DE/DE]; Jean-Ganss-Strasse 38, D-67227 Frankenthal (DE). DEXHEIMER, Edward, Michael [US/US]; 26270 East River Road, Grosse Ile, MI 48138 (US).

## Veröffentlicht:

- Mit internationalem Recherchenbericht.
- Vor Ablauf der für Änderungen der Ansprüche geltenden Frist; Veröffentlichung wird wiederholt, falls Änderungen eintreffen.

Zur Erklärung der Zweibuchstaben-Codes, und der anderen Abkürzungen wird auf die Erklärungen ("Guidance Notes on Codes and Abbreviations") am Anfang jeder regulären Ausgabe der PCT-Gazette verwiesen.

(54) Title: SUSPENSIONS OF PLATELIKE MULTIMETAL CYANIDE COMPOUNDS, THEIR PRODUCTION AND THE USE THEREOF FOR PRODUCING POLYETHER ALCOHOLS

(54) Bezeichnung: SUSPENSIONEN VON PLÄTTCHENFÖRMIGEN MULTIMETALLCYANIDVERBINDUNGEN, DEREN HERSTELLUNG UND DEREN VERWENDUNG ZUR HERSTELLUNG VON POLYETHERALKOHOLEN

(57) Abstract: The invention relates to a catalyst suspension for carrying out the ring-opening polymerization of alkylene oxides containing: a) at least one multimetal cyanide compound having a crystalline structure and a content of platelike particles of at least 30 wt. % with regard to the multimetal cyanide compound; b) at least one organic complexing agent and/or; c) water and/or; d) at least one polyether and/or; e) at least one surface-active substance with the provision that at least constituent a) and at least two constituents b) to e) must be present.

(57) Zusammenfassung: Die Erfindung betrifft Katalysatorsuspension zur ringöffnenden Polymerisation von Alkylenoxiden, enthaltend a) mindestens eine Multimetallcyanidverbindung mit kristalliner Struktur und einem Gehalt an plättchenförmigen Teilchen von mindestens 30 Gew.-%, bezogen auf die Multimetallcyanidverbindung, sowie b) mindestens einen organischen Komplexbildner und/oder c) Wasser und/oder d) mindestens einen Polyether und/oder e) mindestens eine oberflächenaktive Substanz mit der Maßgabe, daß mindestens Komponente a) und mindestens zwei der Komponenten b) bis e) anwesend sein müssen.

WO 00/74843 A1

## WEST Search History

DATE: Wednesday, May 14, 2003

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
<i>DB DWPI; PLUR YES; OP OR</i>			
L8	L7 and l5 not l6	37	L8
L7	((c08g\$)!IPC.)	138870	L7
L6	L5 and polycarbonate\$	37	L6
L5	L4 and l2	301	L5
L4	L3 and l3	114360	L4
L3	polycarbonate\$ or carbonate\$	114360	L3
L2	L1 and catalys\$	5324	L2
L1	cyano\$ or cyanide\$	54842	L1

END OF SEARCH HISTORY

L Number	Hits	Search Text	DB	Time stamp
1	1108	((528/421) or (528/419) or (528/405) or (528/415) or (528/411) or (528/412)).CCLS.	USPAT; US-PGPUB	2003/05/14 12:43
2	100505	polycarbonate\$ or polyethercarbonate\$	USPAT; US-PGPUB	2003/05/14 12:44
3	29	poly adj ether adj carbonate\$	USPAT; US-PGPUB	2003/05/14 12:45
4	5	poly adj ethercarbonate\$	USPAT; US-PGPUB	2003/05/14 12:45
5	99	((528/421) or (528/419) or (528/405) or (528/415) or (528/411) or (528/412)).CCLS.) and ((polycarbonate\$ or polyethercarbonate\$) or (poly adj ether adj carbonate\$) or (poly adj ethercarbonate\$))	USPAT; US-PGPUB	2003/05/14 13:14
6	10303	cyano\$ same cataly\$	USPAT; US-PGPUB	2003/05/14 13:20
7	3971	cyanide\$ same catalys\$	USPAT; US-PGPUB	2003/05/14 13:22
8	218	(cyanide\$ same catalys\$) and ((polycarbonate\$ or polyethercarbonate\$) or (poly adj ether adj carbonate\$) or (poly adj ethercarbonate\$))	USPAT; US-PGPUB	2003/05/14 13:23
9	214	((cyanide\$ same catalys\$) and ((polycarbonate\$ or polyethercarbonate\$) or (poly adj ether adj carbonate\$) or (poly adj ethercarbonate\$))) not (((528/421) or (528/419) or (528/405) or (528/415) or (528/411) or (528/412)).CCLS.) and ((polycarbonate\$ or polyethercarbonate\$) or (poly adj ether adj carbonate\$) or (poly adj ethercarbonate\$)))	USPAT; US-PGPUB	2003/05/14 13:24